



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/776,348	02/12/2004	Yoshiyuki Ando	J07-166804M/AIO	1730

21254 7590 04/26/2005

MCGINN & GIBB, PLLC
8321 OLD COURTHOUSE ROAD
SUITE 200
VIENNA, VA 22182-3817

EXAMINER

TRIEU, THAI BA

ART UNIT PAPER NUMBER

3748

DATE MAILED: 04/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/776,348	Applicant(s) ANDO ET AL.	
	Examiner Thai-Ba Trieu	Art Unit 3748	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 2, 5, 6 and 14 is/are rejected.
- 7) ☒ Claim(s) 3, 4 and 7-13 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12/08/2004</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

This Office Action is in response to the Amendment filed on March 22, 2005. Applicant's cooperation in correcting the informalities in the drawing is appreciated. Claims 2-4 were amended; claims 5-14 were added; and claim 1 was cancelled. . In view of newly discovery prior art, the indicated allowable subject matter of claim 2-4 has been withdrawn. A new Non-Final rejection set forth below.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 5-6, and 14 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Church et al. (Patent Number 6,233,934 B1), in view of Suganami et al. (Pub. Number US 2003/0185672 A1).

Church discloses a variable nozzle control apparatus adapted for a turbocharger in an engine comprising:

a variable nozzle (64) having a vane (Not shown);

an engine ECU (22) for identifying an operating situation of the engine by detected outputs of sensors (20) in the engine and outputting a control signal; and

an electronic control actuator (Not shown) for controlling an opening of the vane in response to the control signal transmitted from the engine ECU (22),

wherein the electronic control actuator includes

an electronic control circuit section (Not Labeled) for receiving an opening indication information of the vane from the engine ECU (22) and outputting an output signal (See Figures 1-2);

a driving section for receiving the output signal from the electronic control circuit and driving the vane of the variable nozzle through an output shaft (See Figures 1-2); and

an sensor (20) for detecting a rotation angle of the output shaft to output an actual angle signal of the output shaft to the electronic control circuit (22) (See Figures 1-2);

wherein the electronic control circuit section comprises:

an signal-converting device for converting the opening indication information of the vane into a target signal of the output shaft (See Figure 1),

a comparing device (67) for comparing the target signal from the signal converting device with the actual signal from the sensor, and outputting an indication signal corresponding to a difference between the target signal and the actual signal (See Figure 2),

a calculating device (70) for carrying out a calculation processing over the indication signal transmitted from the comparing device (See Figure 2), and

a motor driving logic (74,76,80,82,84) generating device for inputting the output signal to a motor driver of the driving section (See Figure 2; Column 5, lines 48-67, Column 6, lines 1-67, and Column 7, lines 1-15).

However, Church fails to disclose an angle sensor and an angle signal.

Suganami teaches that it is conventional in the electronically controlled actuator art for controlling turbocharger, to utilize an angle sensor (150) for detecting a rotation angle of the output shaft to output an actual angle signal of the output shaft (145) to the electronic control circuit (300) (See Figures 1, 6-7, and 9; (See Paragraphs [0008] - [0009], [0011], [0013], [0015] – [0017], [0025])).

It would have been obvious to one having ordinary skill in the art at that time the invention was made, to have utilized an angle sensor and an angle signal to improve the reliability of the Church device. Since the use of angle sensor/position sensor attached to the output shaft for measuring the turning angle of the output shaft would have prevented the vibrations of the output shaft being transmitted to the sensor, and then the reliability of the Church device is improved.

Allowable Subject Matter

Claims 3-4, and 7-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments with respect to claims 2-14 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The IDS (PTO-1449) filed on December 08, 2004 has been considered. An initialized copy is attached hereto.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


- Akao et al. (Pub. Number US 2004/0182079 A1) disclose a failure detection apparatus for an internal combustion engine.
- Saito et al. (Patent Number 6,354,269 B1) disclose a method and system for controlling engine.
- Church et al. (Patent Number 6,00,221) discloses a system for controlling a variable geometry turbocharger.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai-Ba Trieu whose telephone number is (571) 272-4867. The examiner can normally be reached on Monday - Thursday (6:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion can be reached on (571) 272-4859. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TTB
April 21, 2005



Thai-Ba Trieu
Primary Examiner
Art Unit 3748

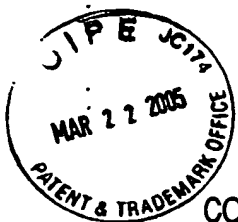


FIG. 3

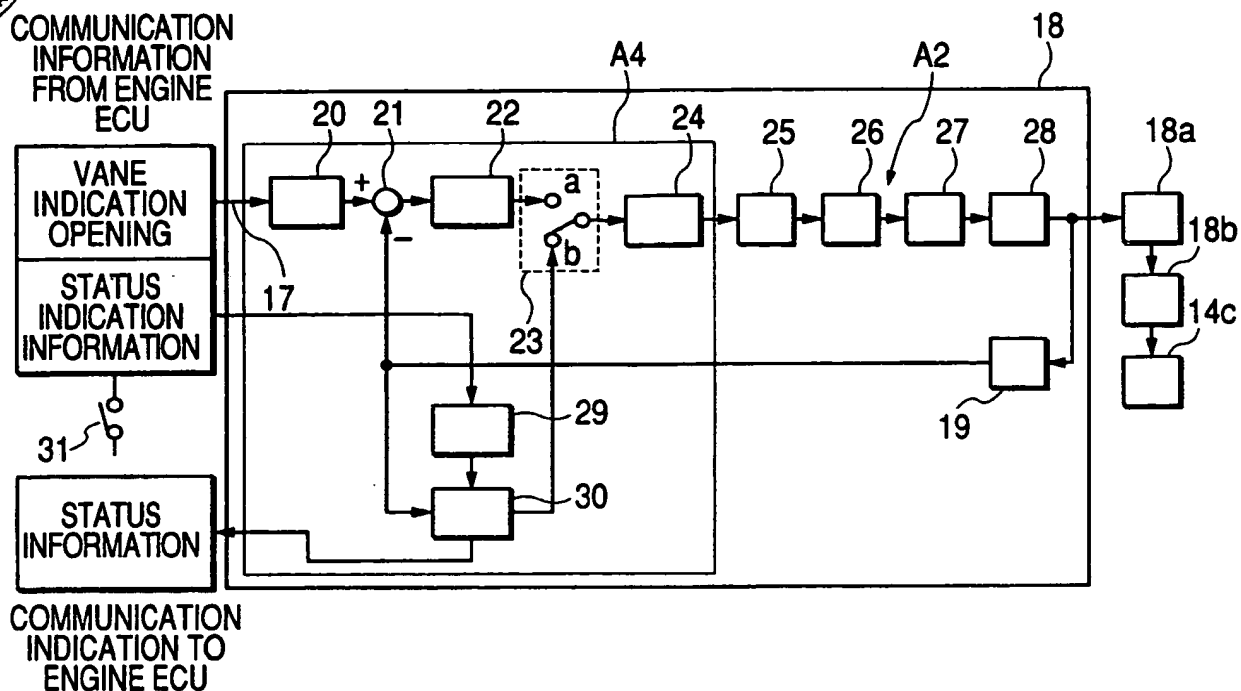


FIG. 4 PRIOR ART

